

3-D IMAGING SYSTEM

ABSTRACT OF THE DISCLOSURE

An active three-dimensional imaging system for optical apparatus includes a
5 relay lens subsystem with an off-axis rotating aperture placed between an imaging or
objective lens and an image recording device such as a CCD camera. According to
another aspect, the imaging system can include an off-axis rotating aperture located
between field and aperture diaphragms of an illumination subsystem. The rotating
aperture allows adjustable non-equilateral spacing between images of out-of-focus
10 object points to achieve higher spatial resolution, increased sensitivity and higher sub-
pixel displacement accuracy than other systems.